

188 nTyralaGlyAspAlaLeuArgGluAsnThrLeuValSer-GluHisAlaGlnArgAspG 208
1710 AACGTGAACACAGTGTCAAAATGAAGAGAGTGAACACATGTNTCAAACGCAAGATN 1769
208 InArgGluThrGlnCysGlnMetLysGluAlaGluHisMetLysGlnAsnGlnAspA 228
1770 ATGTGAACAAACACACTGACAGCAGGAGTCTCTAGATCAGAAATATTTCACACAA 1829
228 snValasnLysHisThrGluGlnGlnGluSerLeuAspGlnLysLeuPheGlnLeuGln 248
1830 GCAAAATATGTGCTTCAACACAGCAATAGTTCATGACATAAAGAAAGCTGCAACAAA 1889
248 exLysasnMetTrpLeuGlnGlnGlnLeuValHisAlaHis-LysLysAlaAspAsnLys 267
1890 AGCAAGATACCAATTCATNTTCTTGAGAGAAATGCN-CATCATCTCTCAAAA 1948
268 SerLysAlaThrIleAspIleHisPheLeuGluArgLysMetGlnHisHisLeuLeuLys 287
1949 GAGAAATATGAGAGATATTATTACNATACCATTTTAAACACCCGTATATTTCAATA 2008
288 GluLysasnGluGluIlePheAsnTrpAsnAsnHisLeuLysAsn-ArgIleTyrGlnTy 307
2009 TCGAAAAAANAAAAA 2027
307 rGluLysGluLysAlaGlu 313

RESULT 30
US-09-285-480-176
; Sequence 176, Application US/09285480
; Patent No. 6590076
; GENERAL INFORMATION:
; APPLICANT: Yuqui, Jiang
; APPLICANT: Dillon, Davin C.
; APPLICANT: Mitcham, Jennifer L.
; APPLICANT: Xu, Jiangchun
; TITLE OF INVENTION: COMPOSITIONS FOR THE TREATMENT AND
; TITLE OF INVENTION: DIAGNOSIS OF BREAST CANCER AND METHODS FOR THEIR USE
; FILE REFERENCE: 210121.470C1
; CURRENT APPLICATION NUMBER: US/09/285,480
; CURRENT FILING DATE: 1999-04-02
; NUMBER OF SEQ ID NOS: 181
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 176
; LENGTH: 317
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-285-480-176

Alignment Scores:
Pred. No.: 5.38e-124 Length: 317
Score: 1397.00 Matches: 288
Percent Similarity: 94.50% Conservative: 4
Best Local Similarity: 93.20% Mismatches: 13
Query Match: 41.05% Indels: 5
Gaps: 0

US-09-602-362E-15 (1-2030) x US-09-285-480-176 (1-317)
QY 1110 CAGGTTTCTCACACTCATGAAATGAAATATCTCTTACATGAAATTCATGATGTGAAA 1169
Db 9 GluValSerHisThrHisGluAsnGluAsnTrpLeuLeuHisGluAsnCysMetLeuLys 28
QY 1170 AAGGAAATGCGCTGCTTAAATAGCCACACTGAAACCAATACAGGAAAG 1229
Db 29 LysGluIleAlaMetLeuLysLeuGluIleAlaThrLeuLysHisGlnTyGlnGluLys 48
QY 1230 GAAATAATATCTTGGACCATTAAGATTTTAAAGAAAGAAAGTCTGAACTTCAGATG 1289
Db 49 GluAsnLysTyrPheGluAspIleLysIleLeuLysGluLysAsnAlaGluLeuGlnMet 68
QY 1290 ACCCTAAACATGAAAGAGGAATCATTAATAAGGGCATCTCAATATAGTGGGAGCTT 1349
Db 69 ThrLeuLysLeuLysGluGluSerLeuThrLysArgAlaSerGlnTySerGlyGlnLeu 88

188 nTyralaGlyAspAlaLeuArgGluAsnThrLeuValSer-GluHisAlaGlnArgAspG 208
1710 AACGTGAACACAGTGTCAAAATGAAGAGAGTGAACACATGTNTCAAACGCAAGATN 1769
208 InArgGluThrGlnCysGlnMetLysGluAlaGluHisMetLysGlnAsnGlnAspA 228
1770 ATGTGAACAAACACACTGACAGCAGGAGTCTCTAGATCAGAAATATTTCACACAA 1829
228 snValasnLysHisThrGluGlnGlnGluSerLeuAspGlnLysLeuPheGlnLeuGln 248
1830 GCAAAATATGTGCTTCAACACAGCAATAGTTCATGACATAAAGAAAGCTGCAACAAA 1889
248 exLysasnMetTrpLeuGlnGlnGlnLeuValHisAlaHis-LysLysAlaAspAsnLys 267
1890 AGCAAGATACCAATTCATNTTCTTGAGAGAAATGCN-CATCATCTCTCAAAA 1948
268 SerLysAlaThrIleAspIleHisPheLeuGluArgLysMetGlnHisHisLeuLeuLys 287
1949 GAGAAATATGAGAGATATTATTACNATACCATTTTAAACACCCGTATATTTCAATA 2008
288 GluLysasnGluGluIlePheAsnTrpAsnAsnHisLeuLysAsn-ArgIleTyrGlnTy 307
2009 TCGAAAAAANAAAAA 2027
307 rGluLysGluLysAlaGlu 313

RESULT 30
US-09-285-480-176
; Sequence 176, Application US/09285480
; Patent No. 6590076
; GENERAL INFORMATION:
; APPLICANT: Yuqui, Jiang
; APPLICANT: Dillon, Davin C.
; APPLICANT: Mitcham, Jennifer L.
; APPLICANT: Xu, Jiangchun
; TITLE OF INVENTION: COMPOSITIONS FOR THE TREATMENT AND
; TITLE OF INVENTION: DIAGNOSIS OF BREAST CANCER AND METHODS FOR THEIR USE
; FILE REFERENCE: 210121.470C1
; CURRENT APPLICATION NUMBER: US/09/285,480
; CURRENT FILING DATE: 1999-04-02
; NUMBER OF SEQ ID NOS: 181
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 176
; LENGTH: 317
; TYPE: PRT
; ORGANISM: Homo sapien
US-09-285-480-176

Alignment Scores:
Pred. No.: 5.38e-124 Length: 317
Score: 1397.00 Matches: 288
Percent Similarity: 94.50% Conservative: 4
Best Local Similarity: 93.20% Mismatches: 13
Query Match: 41.05% Indels: 5
Gaps: 0

US-09-602-362E-15 (1-2030) x US-09-604-287A-176 (1-317)
QY 1110 CAGGTTTCTCACACTCATGAAATGAAATATCTCTTACATGAAATTCATGATGTGAAA 1169
Db 9 GluValSerHisThrHisGluAsnGluAsnTrpLeuLeuHisGluAsnCysMetLeuLys 28
QY 1170 AAGGAAATGCGCTGCTTAAATAGCCACACTGAAACCAATACAGGAAAG 1229
Db 29 LysGluIleAlaMetLeuLysLeuGluIleAlaThrLeuLysHisGlnTyGlnGluLys 48
QY 1230 GAAATAATATCTTGGACCATTAAGATTTTAAAGAAAGAAAGTCTGAACTTCAGATG 1289
Db 49 GluAsnLysTyrPheGluAspIleLysIleLeuLysGluLysAsnAlaGluLeuGlnMet 68
QY 1290 ACCCTAAACATGAAAGAGGAATCATTAATAAGGGCATCTCAATATAGTGGGAGCTT 1349
Db 69 ThrLeuLysLeuLysGluGluSerLeuThrLysArgAlaSerGlnTySerGlyGlnLeu 88
QY 1350 AAGTTCTGATAGCTGAGACATGCTCACTTCTTAATTCAGGAAACCAACACAAA 1409
Db 89 LysValLeuIleAlaGluAsnThrMetLeuThrSerLysLeuLysGluLysGlnAspLys 108
QY 1410 GAAATACTAGAGCAGAAATTCGAATCACCACCTCTGACTGCTTCTGCTTACAGAC 1469
Db 109 GluIleLeuGluAlaGluIleGluSerHisHisProArgLysAlaSerAlaValGlnAsp 128
QY 1470 CATGATCAATATGTGACATCAAGAAACCTGCTTTCACATTCAGAGAT 1529
Db 129 HisAspGlnIleValThrSerArgLysSerGlnGluProAlaPheHisIleAlaGlyAsp 148
QY 1530 GCTTGTTCGAAAGAAAATGATGTGTGATGAGTAGTACCGATATATAACATCAGCT 1589
Db 149 AlaCysLeuGlnArgLysMetAsnValAspValSerSerThr-IleTyrAsnAsnGluVa 168
QY 1590 GCTCCATCAACCACTTCTGAGCTCAAAGGAATCCANAAGCTCAAAAATTAATCTCAA 1649
Db 168 IleuHisGlnProLeuSerGluAlaGlnArgLysSerLysSerLeuLysIleAsnLeuAs 188
QY 1650 TTATGCGAGGAGATGCTCTAAGAGAAAATACATGGTTTCAGGAAACATGCAACAAAGACC 1709

Alignment Scores:
Pred. No.: 5.38e-124 Length: 317
Score: 1397.00 Matches: 288
Percent Similarity: 94.50% Conservative: 4
Best Local Similarity: 93.20% Mismatches: 13
Query Match: 41.05% Indels: 5
Gaps: 0

US-09-604-287A-176
QY 1110 CAGGTTTCTCACACTCATGAAATGAAATATCTCTTACATGAAATTCATGATGTGAAA 1169
Db 9 GluValSerHisThrHisGluAsnGluAsnTrpLeuLeuHisGluAsnCysMetLeuLys 28
QY 1170 AAGGAAATGCGCTGCTTAAATAGCCACACTGAAACCAATACAGGAAAG 1229
Db 29 LysGluIleAlaMetLeuLysLeuGluIleAlaThrLeuLysHisGlnTyGlnGluLys 48
QY 1230 GAAATAATATCTTGGACCATTAAGATTTTAAAGAAAGAAAGTCTGAACTTCAGATG 1289
Db 49 GluAsnLysTyrPheGluAspIleLysIleLeuLysGluLysAsnAlaGluLeuGlnMet 68
QY 1290 ACCCTAAACATGAAAGAGGAATCATTAATAAGGGCATCTCAATATAGTGGGAGCTT 1349
Db 69 ThrLeuLysLeuLysGluGluSerLeuThrLysArgAlaSerGlnTySerGlyGlnLeu 88

Alignment Scores:
Pred. No.: 5.38e-124 Length: 317
Score: 1397.00 Matches: 288
Percent Similarity: 94.50% Conservative: 4
Best Local Similarity: 93.20% Mismatches: 13
Query Match: 41.05% Indels: 5
Gaps: 0


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595 GluGlnMetLysLysLysPheCysValLeuLysLysLeuSerGluAlaLysGluLe 614
3164 AAATCAGCTTACAGACCAAAAGCTAAATGGGACAAAGAGCTCTCGAGTGTGAGATTG 3223
615 LysSerGlnLeuGluAsnGlnLysValLysTrpGluGlnGluLysCysSerVal 632
3224 CCTTTAAATCAAGAAGAGAGAGAGAAATGTCGATATATTAAAGAAAAAATTAGA 3283
632 ----- 632
3284 CCCGAAGAGCAACTTAGGAAAAAGTTAGAAAGTGAACCAACCACTTGAACAGAGACTCTCAGA 3343
632 ----- 632
3344 ATACAAGATATAGAAATGAAAGTGTAAACAGTAATTTGAATCAGGTTTCTCACACTCAT 3403
633 ----- Arg-PheLeuThrLeuMe 638
3404 GAAAGTGAATGATCTCTTTCATGAAATTCATGT 3440
638 tLysMetLysIleIleSerTyrMetLysIleAlaCys 650

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RESULT 9

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US-09-433-826B-469
; Sequence 469, Application US/09433826B
; Patent No. 6579973
GENERAL INFORMATION:
APPLICANT: Jiang, Yuqui
APPLICANT: Dillon, David C.
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Xu, Jiangchun
APPLICANT: Harlocker, Susan L.
TITLE OF INVENTION: COMPOSITIONS FOR THE TREATMENT AND
TITLE OF INVENTION: DIAGNOSIS OF BREAST CANCER AND METHODS FOR THEIR USE
FILE REFERENCE: 210121.470C4
CURRENT APPLICATION NUMBER: US/09/433.826B
CURRENT FILING DATE: 1999-11-03
NUMBER OF SEQ ID NOS: 474
SOFTWARE: FastSeq for Windows Version 3.0
SEQ ID NO 469
LENGTH: 650
TYPE: PRN
ORGANISM: Homo sapiens
FEATURE:
NAME/KEY: unsure
LOCATION: (310)
NAME/KEY: Xaa = Any Amino Acid<221> unsure
LOCATION: (429)
NAME/KEY: Xaa = Any Amino Acid<221> unsure
LOCATION: (522)
OTHER INFORMATION: Xaa = Any Amino Acid
US-09-433-826B-469

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Alignment Scores:
Pred. No.: 2.24e-134 Length: 650
Score: 1769.50 Matches: 396
Percent Similarity: 54.38% Conservative: 57
Best Local Similarity: 47.54% Mismatches: 112
Query Match: 27.44% Indels: 268
DB: 4 Gaps: 9

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US-09-602-362E-26 (1-3673) x US-09-433-826B-469 (1-650)

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QY 1199 TTGAGGCTACAAAGAAACATCTGAGAAATTTTCATGGCCAGCAAGAAAGATCTAGG 1258
Db 1 MetSerProAlaLysGluThrSerGluLysPheThrTrpAlaAlaLysGlyArgProArg 20
QY 1259 AAGATCATCGGGAGGAAAGAAACATCTTAAAGACTGATCGTGGCGAGGAGTACCA 1318
Db 21 LysIleAlaThrGluLysLysGluThrProValLysThrGlyCysValAlaArgValThr 40
QY 1319 CCTAATAAACTGAAGTTTGGAAAAAGGAACATCTAATATGATTGTCATCTCTACAAA 1378

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Db 41 SerAsnLysThrLysValLeuGluLysGlyArgSerLysMetIleAlaCysProThrLys 60
QY 1379 GAAACATCTTACAAAGCAAGTACAAATGTGTAGTGTGAGTCTCTGTAGAGCCTATATTCACT 1438
Db 61 GluSerSerThrLysAlaSerAlaAsn ----- 69
QY 1439 CTTTTTGGCACACGGACTATTGAAAAATTCACAGTGTACAAAAGTTGAGGAAGACTTTAAT 1498
Db 69 ----- 69
QY 1499 CTTGCTACCAAGATTATCTCTAGAGTGTCTCCACAGAAATTATACGTGTTTACCTGATGCT 1558
Db 69 ----- 69
QY 1559 ACATATCAAAAAGATATCAAAAACAATAAATACAAAATAGAAAGATCAGATGTTCCCATCA 1618
Db 70 ----- AppGlnArgPheProSer 75
1619 GAATCCAAACGAGGAGGAGATGAAGATATTTCTTGGGATCTCTGGAGTCTCTTTGAGAGT 1678
Db 76 GluSerLysGlnGluGluAspGluLysTrpSerCysAspSerArgSerLeuPheGluSer 95
1679 TCTGCAAGACTCAAGTGTGTATACCTGCTCTATGCTATGCTATGCTATGCTATGCTATGCTAT 1738
Db 96 SerAlaLysIleGlnValCysIleProGluSerIleTyrGlnLysValMetGluIleAsn 115
1739 AGAAGACTAGAAAGCTTCTCTGAGAAGCCATCTGCGCTTCAAGCCTCGCTGCTGCTGCTGCT 1798
Db 116 ArgGluValGluGluProLysLysProSerAlaPheLysProAlaIleGluMetGln 135
1799 AAGACTGTTCCAAATAAAGCTTTGAAATGAAGATGAAGAAACAAACATTTGAGAGCTCAG 1858
Db 136 AsnSerValProAsnLysAlaPheGluLeuLysAsnGluGlnThrLeuArgAlaAspPro 155
1859 ATGTTTCCATCAGAAATCCAAACAAAGGAGGAGTGAAGAAATTTCTTGGGATCTCTGAGAGT 1918
Db 156 MetPheProGluSerLysGlnLysAspTyrGluGluAsnSerTrpAspSerGluSer 175
1919 CCCTGTGAGACGGTTTCCACAGAGGATGTGTATTTACCCAAAGCTACACATCAAAAAGAA 1978
Db 176 LeuCysGluThrValSerGlnLysAspValCysLeuProLysAlaThrHisGlnLysGlu 195
1979 TTGATACCTTAAGTGGAAATTTAGAGAGTCTCTGTTTAAAGATGCTCTTCTGAAAGCCT 2038
Db 196 IleAspLysIleAsnGlyLysLeuGluGluSerProAsnLysAspGlyLeuLeuLysAla 215
2039 ACCTGTGGAAGGAAAGTTTCTCTTCCAAATAAAGCCTTAGAATTAAGGACAGAGAACA 2098
Db 216 ThrCysGlyMetLysValSerIleProThrLysAlaLeuGluLysAspMetGlnThr 235
2099 TTCAAAGCAGAGTCTCTCTGATAAAGATGCTTCTGAAAGCTACCTCTGTGGAAGAAAGTT 2158
Db 236 PheLysAlaGluProProGlyLysProSerAlaPheGluProAlaThrGluMetGlnLys 255
2159 TCTCTTCCAAATAAAGCCTTAGAATTAAGGACAGAGAACAACCTCAAGAGAGTCTCTCT 2218
Db 256 SerValProAsnLysAlaLeuGluLysAsnGluGlnThrLeuArgAlaAsp ----- 273
2219 GATAATGATGCTCTCTGAAAGCCTACCTCTGTGGAAGGAAAGTTTCTCTTCCAAATAAGCT 2278
Db 273 ----- 273
2279 TTAGAATTCGAAGGACAGAGAAACATTTCAAGCAGCTCAGATGTTCCCATCAGAAATCCAAA 2338
Db 274 ----- GluIleLeuProSerGluSerLys 281
2339 CAAAAGGATGATGAAGAAATTTCTTGGGATTTTGGAGTTTCTCTGAGACTCTCTTACAG 2398
Db 282 GlnLysAspTyrGluGluSerTrpAspSerGluSerLeuCysGluThrValSerGln 301
2399 AATGATGCTGTTTACCCCAAGGCTACACATCAAAAGAAATTCGATACCTTAAAGTGAAGA 2458

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Qy	3284	CCCGAAGAGCAACTTAGGAAAAAGTTAGAAGTGAACCACTTGAAACAGACTCTCAGA	3343
Db	632	-----	632
Qy	3344	ATACAAGATATAGAATTGAAAAGGTAAACAAGTAATTGTAATCAGGTTTTCTCACACTCAT	3403
Db	633	::: ---Arg-PheLeuThrIeuMe	638
Qy	3404	GAAAGTGAANAATCATCTCTTTTCATGAAAATTGCATGT	3440
Db	638	: : : : : : : : tlyMetLysIIleISerTyzMetylSileAlaCys	650

US-09-604-287A-469
; Sequence 469, Application US/09604287A
; Patent No. 6586572
; GENERAL INFORMATION:
; APPLICANT: Jiang, Yuqiu
; APPLICANT: Dillon, Davin C.
; APPLICANT: Mitcham, Jennifer L.
; APPLICANT: Xu, Jiangchun
; APPLICANT: Harlocker, Susan L.
; APPLICANT: Hepler, William T.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
; TITLE OF INVENTION: DIAGNOSIS OF BREAST CANCER
; FILE REFERENCE: 210121.470C7

Alignment Scores:	
Pred. No.:	2.24e-134
Score:	1769.50
Percent Similarity:	54.38%
Best Local Similarity:	47.54%
Query Match:	27.4%
DB:	4
DE:	9
Length:	650
Matches:	396
Conservative:	57
Mismatches:	112
Indels:	268
Gaps:	9

US-09-602-362E-26 (1-3673) x US-09-604-287A-469 (1-650)

1199	TTGAGGCGCTACAAAGAAGAAACATCTGAGAAATTTTCATGCCGCCAGCAAGAAAGATCTAGG	1258
	:::	
1	MetSerProAlaIysGluThrSerGluLysPheThrTrpAlaAlaLysGlyArgProArg	20
1259	ACATCACATGGGAGGAAAAAGAAACATCTGAAGACTGAATGGGTGGCGAGGATGACCA	1318
	::	
21	LysIleAlaTrpGluLysGluThrProValLysThrGlyCysValAlaArgValThr	40
1319	CCTAATAAACTGAAGTTTTGGAAAAAGGAACATCTAATATGATTGCATCTCTCTACAAA	1378
41	SerAsnLysThrLysValIleuGluLysGlyArgSerLysMetIleAlaCysProThrLys	60
1379	GAACATCTACAAAAGCAAGTACAAATGTGGATGTGATGTTCTGTAGAGCCATATATCAAT	1438
61	GluSerSerThrLysAlaSerAlaSer-----	69